

REMARKS

Claims 1-23 are pending. It is respectfully submitted that the present response presents no new issues and places this case in condition for allowance. Reconsideration of the application in view of the above amendments and the following remarks is requested.

I. The Rejection of Claims 1-23 under 35 U.S.C. 103(a)

Claims 1-23 are rejected under 35 U.S.C. 103(a) as obvious over Zhou et al. in view of Discher et al. The Examiner states that Zhou et al. discloses a detergent vesicular preparation prepared from diblock copolymers or propylene oxide and ethylene oxide. The vesicular preparation is stated to further contain surfactants and enzymes. The Examiner states that Zhou et al. do not teach that the vesicles are made entirely from Pluronic and the examples indicate that the vesicles are made from novasomes, which contain only 20% non-ionic surfactant and rest lipids. Discher et al. is stated to teach that amphiphilic diblock polymers (like phospholipids) when dispersed in water self-assemble into a lamellar structure and are useful for "encapsulation."

The Examiner asserts that the motivation to combine Discher et al. with Zhou et al. to render the claimed invention obvious is found because Discher et al. teach that such vesicles are "tough" and it is known in the art that "such compositions can be used to encapsulate enzymes in laundry preparations."

At best, the teaching of Discher, as combined with Zhou et al., provide a motivation to explore applications of the "tough" Discher et al. vesicles; however, such teachings certainly do not provide a suggestion that the vesicles of Discher et al. are suitable for encapsulation of enzymes or suitable for compositions comprising surfactant, e.g., detergents. There are many applications possible for vesicles, some of which may work, some of which may not work. The status of the vesicular structures of Discher et al. as "tough" does not provide any information about either their stability in the presence of surfactants or their ability to properly encapsulate and release enzymes.

Moreover, even though the conclusion that the vesicular structures of Discher et al. were "tough", the "toughness" of a vesicle is not the only factor which determines whether a vesicle is suitable for either the incorporation of an enzyme or stability in presence of surfactants. The suitability of a vesicular structure for encapsulation of enzymes and for use in the presence of surfactants is a delicate balance between, on the one hand, the prevention of incorporation of surfactants in the vesicular structure leading to permeation of vesicles, and, on the other hand, the ability to release the content (enzymes) of the vesicles in an application, e.g., dilution in a liquid

detergent during application. The size and polydispersity of the vesicles is also crucial in order to achieve the desired properties for encapsulating enzymes.

Discher et al. teaching that the vesicles are "tough" does not disclose that the vesicles have properties suitable for encapsulation of enzymes, stability in a surfactant composition, and release of the enzymes in the appropriate application. The general conclusion at the end of Discher et al. that it "might find its own application in....encapsulation" (p. 1145, last paragraph) does not provide a teaching or suggestion those vesicles can be used to encapsulate enzyme.

Zhou et al.'s teaching of a colloidal suspension for use in delivering peracid oxidants in detergents is also not instructive of the suitability for applying the Discher vesicular composition to encapsulating enzymes or for use in compositions comprising surfactants. Again, many vesicular compositions may not be suitable for use in encapsulating enzymes or in detergents, and the Zhou et al. composition is not the composition of the claimed invention.

Thus, there is no motivation to substitute the Discher et al. vesicles for the composition of Zhou et al.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

II. The Rejection of Claims 1-23 under 35 U.S.C. 103(a)

Claims 1-23 are rejected under 35 U.S.C. 103(a) obvious over Zhou et al. in view of Discher and further in view of WO 97/24177. Zhou et al. and Discher are applied as discussed above. WO 97/24177 is cited as providing further motivation to employ the vesicular structure of Discher et al. to encapsulate enzymes for use in a detergent as the Examiner says that WO 97/24177 uses diblock polymers in a laundry detergent, though not in vesicular form.

This rejection is respectfully traversed. As previously discussed, Zhou et al. and Discher et al. do not suggest the claimed invention. WO 97/24177 also does not provide the motivation to use the vesicles of Discher et al. for encapsulating enzymes and for use in combination with surfactants.

WO 97/24177 discloses an encapsulation shell for an enzyme core which is formed by *in situ* coacervation or condensation of a monomeric or polymeric agent. See WO 97/24177 at page 5, lines 33-35, page 6, line 35 to page 7, line 5. The encapsulation layer resulting from the coacervation or condensation reaction is a randomly cross-linked (i.e., web-like or plastic-like structure), not a vesicular structure (i.e., uni- or multi-lamellar structure). This information is not instructive as to whether the vesicular structure of Discher et al. would be useful for encapsulating

enzymes or is stable in a composition comprising surfactants because it is the structure which is relevant, i.e., the vesicular form, not merely its components as assembled in a different structure.

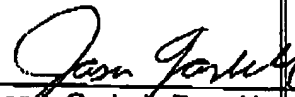
For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

III. Conclusion

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

Respectfully submitted,

Date: April 7, 2005



Jason I. Garbell, Reg. No. 44,116
Novozymes North America, Inc.
500 Fifth Avenue, Suite 1600
New York, NY 10110
(212)840-0097